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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,442	06/25/2003	Takeshi Ono	15162/05530	4389

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EXAMINER	
MADDEN, GREGORY VINCENT	
ART UNIT	**PAPER NUMBER**
2622	

DATE MAILED: 11/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/603,442	ONO ET AL.	
	Examiner	Art Unit	
	Gregory V. Madden	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 October 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) *12-14 and 16-20* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11 and 15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 June 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☒ Other: *JP Pub. 2001-028740*.

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Group I (pertaining to claims 1-11 and 15) in the reply filed on 10/24/2006 is acknowledged.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Masabumi (JP Pub. 2001-028740).

First, in regard to **claim 1**, the Masabumi reference teaches an image capture apparatus (video camera 1) comprising an image generator (pick-up unit 2) for photographing a subject and generating image data, an interface (cable communication interface 5 and radio communication interface 8) for performing data communication with an external device (e.g. a personal computer), a discriminator (camera control interface unit 4) for determining a data communication mode (in this instance, cable or radio communication mode) established between the interface and the external device, a compressor

(image encoder 3) for setting a compression ratio adapted to the data communication mode on the basis of a result of determination of the discriminator (4) and compressing the image data at the set compression ratio, and a transmitter (also cable communication interface 5 and radio communication interface 8) for transmitting the image data compressed by the compressor (9) to the external device via the interface. Please refer to Paras. [0035-0042], [0054], [0079], and [0105-0106].

Considering **claim 2**, the Masabumi reference discloses the limitations of claim 1 above, and Masabumi also teaches that the discriminator (camera control interface unit 4) determines the communication speed (i.e. the bandwidth) as the data communication mode (wherein the bandwidth for the cable communication mode is considered to be higher than that of the radio communication mode), and the compressor (image encoder 3) sets a compression ratio in accordance with the determined communication mode. See Paras. [0054], [0092-0093] and [0105-0106].

As for **claim 3**, the limitations of claim 2 are taught above, and Masabumi further discloses that the discriminator (camera control interface unit 4) determines whether the communication speed is high speed (in the case of a large-bandwidth cable communication) or low speed (in the case of lower-bandwidth radio communication), and when the communication speed is low (low bandwidth in radio communication), the compressor (image encoder 3) sets a higher compression ratio as compared with the case where the communication speed is high speed. Please refer again to Paras. [0035-0042], [0054], [0079], and [0105-0106].

Regarding **claim 4**, the limitations of claim 1 are again taught above, and the Masabumi reference teaches that the discriminator (camera control interface unit 4) determines wire communication (i.e. cable communication) or wireless communication (i.e. radio communication) as the data communication mode. See Paras. [0054] and [0092-0093].

Next, considering **claim 5**, the limitations of claim 4 are taught by Masabumi above, and Masabumi also discloses that when the data communication mode is wireless communication (radio

communication), the compressor (image encoder 3) sets a higher compression ratio as compared with the case where the data communication mode is wire communication (cable communication). Please refer once again to Paras. [0092-0093].

Finally, in regard to **claim 15**, the Masabumi reference teaches a method of compressing image data by an image capturing apparatus (video camera 1), the method comprising generating image data (via pick-up unit 2), determining a data communication mode (i.e. cable or radio communication) established between an interface for performing data communication (cable communication interface 5 and radio communication interface 8) and an external device (e.g. a PC), setting a compression ratio addpted to the determined data communication mode, compressing the image data at the set compression ratio (via image encoder 3), and transmitting the compressed image data to the external device via the interface. Please refer to Paras. [0035-0042], [0054], [0079], and [0105-0106].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 6-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masabumi (JP Pub. 2001-028740) in view of Yoshida et al. (U.S. Pat. 6,690,417).

Next, considering **claim 6**, the limitations of claim 1 are taught above by the Masabumi reference, but Masabumi fails to teach that the image capturing apparatus (video camera 1) contains a recorder for recording image data compressed by the compressor onto a recording medium. However, the Yoshida reference teaches an image capturing apparatus (digital camera 100) having a recorder for recording

image data compressed by a compressor (image compression unit 306) onto a recording medium (memory 304), wherein the compression ratio is changed based on changes in transmission to and from an external device (via reception amount calculating unit 302) (See Figs. 15 and 16, and Col. 21, Line 39 – Col. 22, Line 26). It would have been obvious to one of ordinary skill in that art at the time the invention was made to have incorporated the recorder for recording compressed image data onto a recording medium, as taught by Yoshida, with the image capturing apparatus of Masabumi. One would have been motivated to make the combination because by recording the compressed image data on a recording medium within the camera, the data can be transmitted at any time or possibly not transmitted to the external device at all, thereby allowing the user (or the camera controller) to choose optimal image data transmission circumstances.

Regarding **claim 7**, the limitations of claim 6 are taught above, and the Yoshida reference teaches that the compression ratio of the image data recorded on the recording medium is set to a lower value (i.e. higher quality) than the compression ratio of image data transmitted, as taught in Col. 22, Lines 8-26.

As for **claim 8**, again the limitations of claim 6 are taught above, and the Yoshida reference further discloses a detector for detecting the amount of image data recorded on the recording medium (memory remaining amount calculating unit 309), wherein the compressor (image compression unit 306) sets a compression ratio on the basis of the data amount (memory remaining), as again shown in Fig. 15 and Col. 21, Line 39 – Col. 22, Line 26, while the Masabumi reference teaches that the compression ratio is set on the basis of the data communication mode (i.e. cable or radio) in Paras. [0105-0106]. It would have been obvious to one of ordinary skill in that art at the time the invention was made to have incorporated setting the compression ratio based on the data amount in the recording medium, as done by Yoshida, with the setting of the compression ratio based on the data communication mode, as taught by Masabumi.

Next, in regard to **claim 9**, the limitations of claim 8 are set forth above, and the Masabumi reference also teaches that the image capturing apparatus (video camera 1) calculates the time of transmission of image data (i.e. the bandwidth of the communication medium) to the external device (PC) from the data amount detected to be transferred, wherein the compressor (image encoder 3) sets a compression ratio on the basis of the data communication mode (wired or wireless) and the transmission time (or bandwidth) calculated by the calculator. Please refer to Paras. [0035-0042], [0054], [0079], and [0105-0106]. It is well known to those of ordinary skill in the art that bandwidth calculation can be considered a time of transmission calculation in digital systems, as bandwidth is expressed in, for example, kB/sec.

Considering **claim 10**, the limitations of claim 6 are once again taught above, and the Yoshida reference further discloses that a transmitter transmits the compressed image data recorded on the recording medium to an external device, as shown in Figs. 17 and 18, and Col. 24, Line 31 – Col. 25, Line 26.

Finally, regarding **claim 11**, the limitations of claim 6 are taught above by Masabumi in view of Yoshida, and the Masabumi reference also teaches that the image data generated by the image generator (pick-up unit 2) can be transmitted as moving image data (as evidenced by the video camera 1 using MPEG-4 encoding) to the external device via the interface (See Para. [0046]), and the Yoshida reference teaches that the compression ratio of the image data recorded on the recording medium is set to a lower value (i.e. higher quality) than the compression ratio of image data transmitted, as taught in Col. 22, Lines 8-26, as is similarly shown above with respect to claim 7.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Tullis (U.S. Pat. 6,535,243)

Watanabe (U.S. Pat. 7,027,084)

Gaylord (U.S. Pat. 6,882,361)

Ueyama (U.S. Pub. 2002/0191081)

Creamer et al. (U.S. Pat. 6,930,709)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory V. Madden whose telephone number is 571-272-8128. The examiner can normally be reached on Mon.-Fri. 8AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ngoc Yen Vu can be reached on 571-272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Gregory Madden
November 9, 2006

NGOC-YEN VU
SUPERVISORY PATENT EXAMINER